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Results of some of the Modern Language Association (MLA) Cooperative Foreign Language Tests, administered to students of Spanish, German, and French in grades 9-12 in the Pennsbury School District of Pennsylvania are compared with the national norms. Although most of the comparison is set up in tablees a summary of the analysis is included. Frequency distributions of the students' converted scored are illustrated with graphs. (AF)

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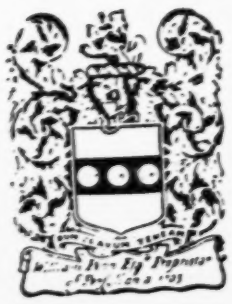

MODERN FOREIGN LANGUAGES TEST RESULTS, SPRING 1967 - ANALYSIS

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In the spring of 1967, certain of the MLA Cooperative Foreign Language Tests were administered to students in grades 9 - 12. These are tests of competence in language and provide separate measures of skills in listening, speaking, reading and writing. The statistical analysis is confined to the listening test for first year students in Spanish, German and French, the listening, reading and writing tests for second year students in these languages, and the listening, reading and writing tests for third and fourth year students in French.

One advantage of using the ALM program in foreign language instruction is the availability of standardized achievement tests to evaluate progress. The MLA Cooperative Foreign Language Tests developed by the Modern Language Association in cooperation with the Educational Testing Service give a basis for comparing the achievement of Pennsbury students enrolled in modern foreign languages with the achievement of students from the national sample on whom the tests were standardized.

Such comparisons are valid and helpful only when the groups being compared do not differ significantly in ability to do school work. To determine this comparability between the norms groups and the Pennsbury groups, the SCAT V means for the two groups were subjected to the Critical Ratio Test for significance of difference. The "z" values obtained were then converted to "P" or probability values. In general, the probability that a difference between the means would occur as often as 5 times in a hundred (.05) by chance can be taken as the lower limit of chance difference. From "P" values less than .05 we can infer that the differences are non-chance or real, and that the two groups being compared are different in the trait under consideration.

SPANISH

Table 1 compares the SCAT V means for the norms group and the Pennsbury group who took the Spanish, Level One, listening test. Since the "P" value is less than .001, a chance difference this great could happen no more frequently than once in a thousand times. Therefore, these are not comparable groups in learning ability as measured by SCAT and differences in mean performance on the listening test might be expected. Contrary to this expectation, Table 3 shows that in Spanish, Level One, listening achievement the Pennsbury students did as well as the norms group students although they scored lower in ability.

Table 2 presents the comparison of SCAT V means for the norms and for the Pennsbury groups who took the Spanish, Level Two, listening, reading and writing tests. "P" values are all above .05 - .29, .30 and 33. These could be chance differences and there is justification for the inference that these groups do not differ significantly in learning ability.

Since the groups do not differ significantly in learning ability, their performance on the Spanish, Level Two, listening, reading and writing tests can be compared. Table 4 compares the score means for the norms and Pennsbury groups on the Spanish, Level Two, listening, reading and writing tests. A "P" value of .11 for listening indicates that the Pennsbury group's listening achievement is comparable with that of the norms groups. However, in reading and writing, the Pennsbury group's achievment is below that of the norms groups.

TABLE 1

Comparison of SCAT V Converted Score Means for the Norms Group and for the Pennsbury Group Who Took the Cooperative Foreign Language Test, Spanish, Level One, Listening - Spring, 1967

	norms group (SCAT)			Pennsbury group (SCAT)				
	N	M	S	N	M	S	Z	P
listening	680	288	12	164	278.3	10.5	10.3	P < .001

TABLE 2

Comparison of SCAT V Converted Score Means for the Norms Groups and for the Pennsbury Group Who Took the Cooperative Foreign Language Test, Spanish, Level Two, Listening, Reading and Writing - Spring, 1967

	norms groups (SCAT)			Pennsbury group (SCAT)				
	N	M	S	N	M	S	Z	P
listening	534	291	11	50	288.9	13.6	1.05	.29
reading	323	291	11	50	288.9	13.6	1.03	.30
writing	150	291	11	50	288.9	13.6	0.98	.33

TABLE 3

Comparison of Converted Score Means for the Norms Group and for the Pennsbury Group Who Took the Cooperative Foreign Language Test, Spanish, Level One, Listening - Spring, 1967

	norms group			Pennsbury group				
	N	M	S	N	M	S	Z	P
listening	680	147	9	242	146.1	6.58	.67	.10

TABLE 4

Comparison of Converted Score Means for the Norms Groups and for the Pennsbury Groups Who Took the Cooperative Foreign Language Test, Spanish, Level Two, Listening, Reading and Writing - Spring, 1967

	norms groups			Pennsbury groups				
	N	M	S	N	M	S	Z	P
listening	534	153	11	101	151.6	7.40	1.59	.11
reading	323	153	11	100	150.6	6.98	2.57	.03
writing	150	153	10	100	148.5	8.16	3.87	P<.001

GERMAN

Table 5 compares the SCAT V means for the norms and Pennsbury groups who took the German, Level One, listening test. Since the "P" value is .07 there is no significant difference between the groups in learning ability and their mean scores on achievement can profitably be compared.

Table 6 shows that SCAT V means for the norms and Pennsbury groups who took the German, Level Two, listening, reading and writing tests are not significantly different since the "P" values are .44, .99 and .45 respectively.

When achievement score means for the norms and Pennsbury groups on the German, Level One, listening test, and on the German, Level Two, listening, reading and writing tests are compared, we find significant differences in all but the level two, writing test. Therefore, we can infer that the lower Pennsbury mean scores on the level one, listening and the level two, listening and reading tests indicate lower achievement. On the level two writing test Pennsbury students achieve as well as the norms group. Data supporting this inference are presented in Table 7 and 8.

TABLE 5

Comparison of SCAT V Converted Score Means for the Norms Group and for the Pennsbury Group Who Took the Cooperative Foreign Language Test, German, Level One, Listening - Spring, 1967

	norms group (SCAT)			Pennsbury group (SCAT)				
	N	M	S	N	M	S	Z	P
listening	470	291	13	135	293.3	13.0	1.81	.07

TABLE 6

Comparison of SCAT V Converted Score Means for the Norms Groups and for the Pennsbury Group Who Took the Cooperative Foreign Language Test, German, Level Two, Listening, Reading and Writing - Spring, 1967

	norms groups (SCAT)			Pennsbury group (SCAT)				
	N	M	S	N	M	S	Z	P
listening	405	296	13	46	294.2	15	.77	.44
reading	230	294	13	46	294.2	15	.008	.99
writing	186	296	12	46	294.2	15	.75	.45

TABLE 7

Comparison of Converted Score Means for the Norms Group and for the Pennsbury Group Who Took the Cooperative Foreign Language Test, German, Level One, Listening - Spring, 1967

	norms group			Pennsbury group				
	N	M	S	N	M	S	Z	P
listening	470	147	9	166	145.4	4.14	3.13	P < .001

TABLE 8

Comparison of Converted Score Means for the Norms Groups and for the Pennsbury Group Who Took the Cooperative Foreign Language Test, German, Level Two, Listening, Reading and Writing - Spring, 1967

	norms groups			Pennsbury group				
	N	M	S	N	M	S	Z	P
listening	405	154	10	74	151.3	8.2	2.50	.01
reading	230	155	12	74	148.4	7.9	5.40	P < .001
writing	186	152	9	74	149.7	10.4	1.66	.10

FRENCH

Tables 9 through 12 present the comparison of SCAT V means for the norms group students and for the Pennsbury students who took the French, Level One, listening test, and the French, Levels Two, Three and Four listening, reading and writing tests in the Spring of 1967.

A "P" value of less than .001 for the Level One listening test indicates a real difference in learning ability between the norms and Pennsbury groups. Since the Pennsbury mean is much lower, we can predict that achievement in French for these groups is likely to be different and that the norms group students will score higher. This prediction is born out by the data in Table 13 showing that the mean achievement for the two groups in listening is significantly different and that the Pennsbury mean is the lower.

When SCAT V means for the norms groups and the Pennsbury groups on the listening, reading and writing tests for Levels Two, Three and Four are analyzed for significance of difference (Tables 9, 10 and 11), the differences are found to be not significant except for the Level Three, reading test, where a "P" value of .03 falls just below the .05 level chosen as the lower limit of chance differences.

Tables 14, 15 and 16 present the comparison of score means for the norms and Pennsbury groups on the listening, reading and writing tests for French, Levels Two, Three and Four. A study of these data leads to the conclusion that the Pennsbury groups did less well than the norms groups on the Level Three tests and on the listening and reading tests of Level Four. On the remaining tests of Levels Two, Three and Four, the Pennsbury group achieved as well as the norms group.

TABLE 9

Comparison of SCAT V Converted Score Means for the Norms Group and for the Pennsbury Group Who Took the Cooperative Foreign Language Test, French, Level One, Listening - Spring, 1967

	norms group (SCAT)			Pennsbury group (SCAT)				
	N	M	S	N	M	S	Z	P
listening	705	290	12	132	279.4	11.8	9.4	P <.001

TABLE 10

Comparison of SCAT V Converted Score Means for the Norms Groups and for the Pennsbury Group Who Took the Cooperative Foreign Language Test, French, Level Two, Listening, Reading and Writing - Spring, 1967

	norms groups (SCAT)			Pennsbury group (SCAT)				
	N	M	S	N	M	S	Z	P
listening	625	294	12	133	294.7	15.8	.48	.63
reading	445	293	11	133	294.7	15.8	1.21	.22
writing	170	295	12	133	294.7	15.8	.29	.77

TABLE 11

Comparison of SCAT V Converted Score Means for the Norms Groups and for the Pennsbury Group Who Took the Cooperative Foreign Language Test, French, Level Three, Listening, Reading and Writing - Spring, 1967

	norms groups (SCAT)			Pennsbury group (SCAT)				
	N	M	S	N	M	S	Z	P
listening	452	300	11	97	302.4	14	1.59	.11
reading	350	299	11	97	302.4	14	2.19	.03
writing	176	301	11	97	302.4	14	.85	.39

TABLE 12

Comparison of SCAT V Converted Score Means for the Norms Groups and for the Pennsbury Group Who Took the Cooperative Foreign Language Test, French, Level Four, Listening, Reading and Writing - Spring, 1967

	norms groups (SCAT)			Pennsbury group (SCAT)				
	N	M	S	N	M	S	Z	P
listening	311	312	13	38	310.9	12	.52	.60
reading	331	309	13	38	310.9	12	.91	.64
writing	155	310	12	38	310.9	12	.41	.68

TABLE 13

Comparison of Converted Score Means for the Norms Group and for the Pennsbury Group Who Took the Cooperative Foreign Language Test, French, Level One, Listening - Spring, 1967

	norms group			Pennsbury group				
	N	M	S	N	M	S	Z	P
listening	705	146	8	231	142.6	5.86	6.90	P < .001

TABLE 14

Comparison of Converted Score Means for the Norms Groups and for the Pennsbury Groups Who Took the Cooperative Foreign Language Test, French, Level Two, Listening, Reading and Writing - Spring, 1967

	norms groups			Pennsbury groups				
	N	M	S	N	M	S	Z	P
listening	625	155	10	201	153.4	10.24	1.95	.09
reading	445	153	11	210	153.6	10.02	.69	.49
writing	170	156	10	211	155.1	11.02	.83	.41

TABLE 15

Comparison of Converted Score Means for the Norms Groups and for the Pennsbury Groups Who Took the Cooperative Foreign Language Test, French, Level Three, Listening, Reading and Writing - Spring, 1967

	norms groups			Pennsbury groups				
	N	M	S	N	M	S	Z	P
listening	452	165	12	132	162.2	9.14	2.85	.004
reading	350	170	11	137	164.6	8.82	5.60	P < .001
writing	176	166	10	138	161.3	110.3	4.05	P < .001

TABLE 16

Comparison of Converted Score Means for the Norms Groups and for the Pennsbury Groups Who Took the Cooperative Foreign Language Test, French, Level Four, Listening, Reading and Writing - Spring, 1967

	norms groups			Pennsbury groups				
	N	M	S	N	M	S	Z	P
listening	311	176	11	41	168.5	8.38	5.10	P< .001
reading	331	177	11	40	173.7	8.30	2.26	.02
writing	155	172	10	41	170.9	8.98	.67	.50

SUMMARY OF ANALYSIS

A. Level One Tests in Listening - Spanish, German, French

1. comparing Pennsbury students with norms group students in learning ability (SCAT V)

   a. LOWER than norms group students who took Spanish and French tests

   b. EQUAL to norms group students who took German tests

2. comparing Pennsbury students with norms group students in listening achievement

   a. LOWER than norms group students in French

   b. EQUAL to norms group students in Spanish

   *c. LOWER than norms group students in German

B. Level Two Tests in Listening, Reading and Writing - Spanish, German, French

1. comparing Pennsbury students with norms group students in learning ability (SCAT V)

   a. EQUAL to norms group students who took Spanish, German and French tests

2. comparing Pennsbury students with norms group students in listening, reading and writing achievement

   a. EQUAL to the norms group students in French for all three areas

   b. EQUAL to the norms group students in Spanish for listening

   *c. LOWER than the norms group students in Spanish for reading and writing

   d. EQUAL to the norms group students in German for writing

   *e. LOWER than the norms group students in German for listening and reading

C. Level Three Tests in Listening, Reading and Writing - French

1. comparing Pennsbury students with norms group students in learning ability (SCAT V)

   a. EQUAL to norms group students who took the listening and writing tests

b. HIGHER than the norms group students who took the reading test

2. comparing Pennsbury students with norms group students in listening, reading and writing achievement

*a. LOWER than norms group students in all three areas

D. Level Four Tests in Listening, Reading and Writing - <u>French</u>

1. comparing Pennsbury students with norms group students in learning ability (SCAT V)

a. EQUAL to norms group students who took tests in all three areas

2. comparing Pennsbury students with norms group students in listening, reading and writing achievement

*a. LOWER than norms group students in listening and reading

b. EQUAL to norms group students in writing

*equal to norms group in ability but lower in achievement (German 1, listening; Spanish 2, reading and writing; German 2, listening and reading; French 3, listening, reading and writing; French 4, listening and reading)

Graphs of Frequency Distributions

Figures 1 to 8 present graphically the frequency distributions of converted scores for the groups of Pennsbury students who took MLA Cooperative Foreign Language Tests in Spanish, German and French at the end of the 1966-67 school year.

On the graphs for Levels Two, Three and Four, colors represent the following language skills:

black - listening

green - reading

blue - writing

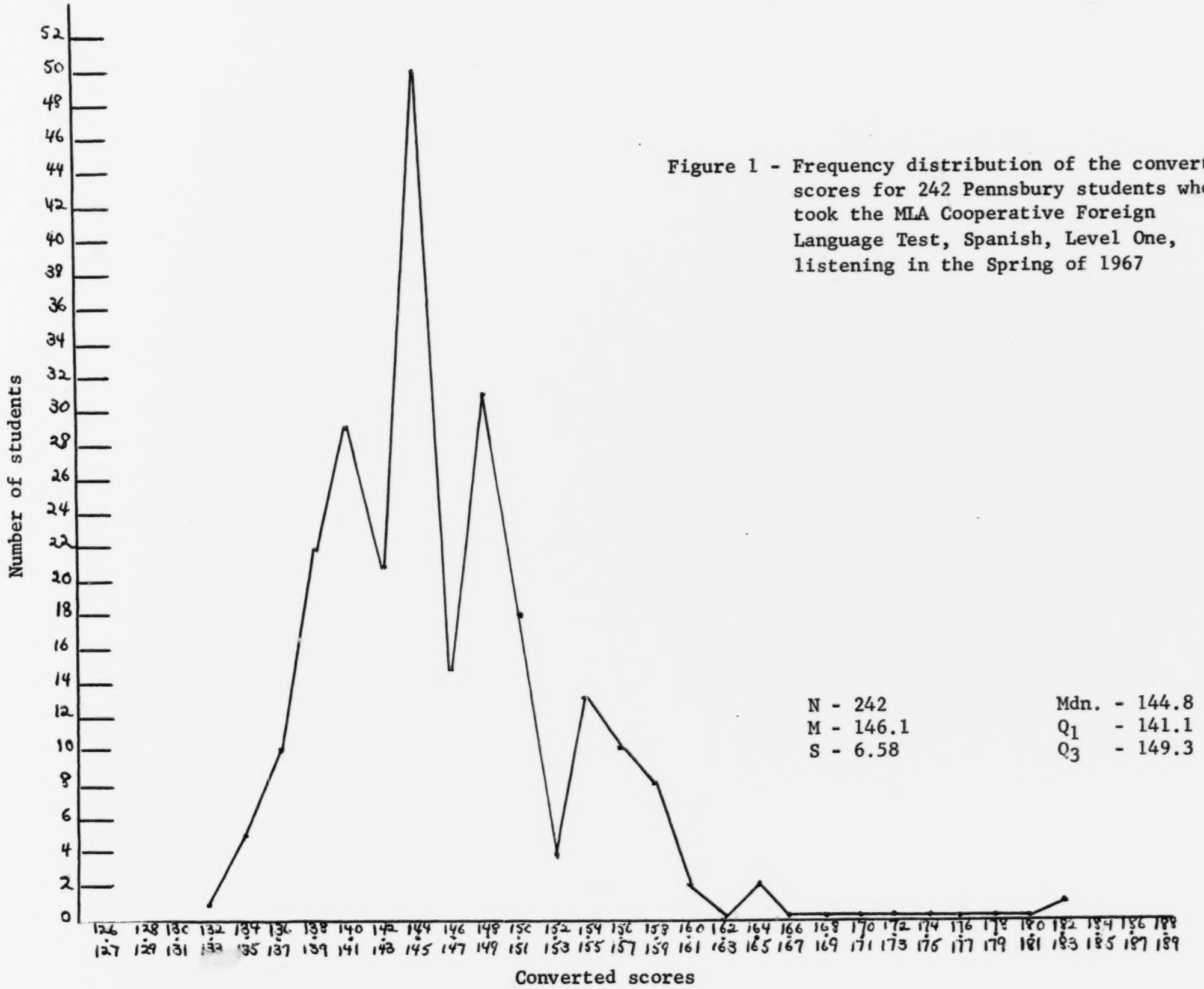


Figure 1 - Frequency distribution of the converted scores for 242 Pennsbury students who took the MLA Cooperative Foreign Language Test, Spanish, Level One, listening in the Spring of 1967

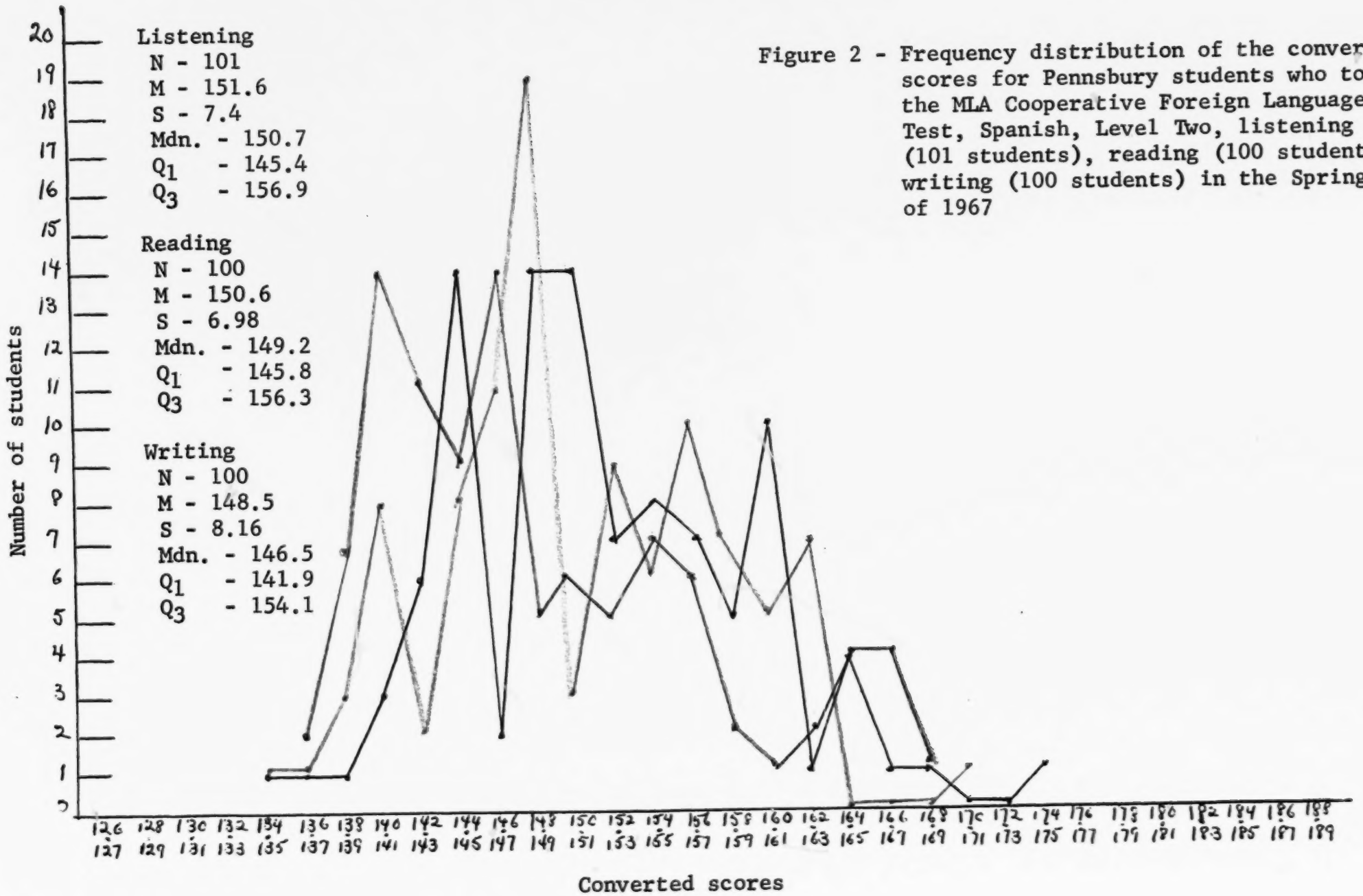


Figure 2 - Frequency distribution of the converted scores for Pennsbury students who took the MLA Cooperative Foreign Language Test, Spanish, Level Two, listening (101 students), reading (100 students), writing (100 students) in the Spring of 1967

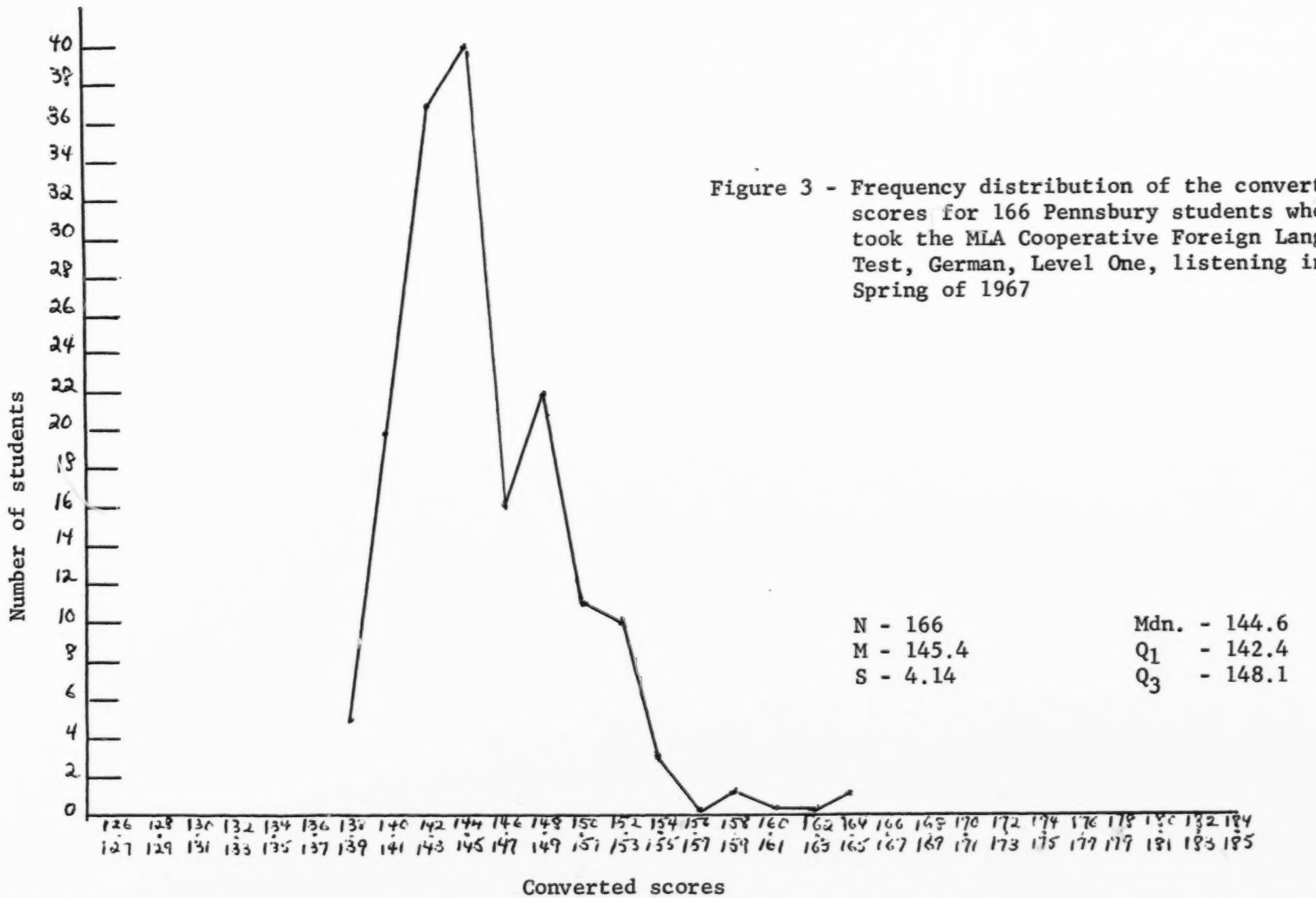


Figure 3 - Frequency distribution of the converted scores for 166 Pennsbury students who took the MLA Cooperative Foreign Language Test, German, Level One, listening in the Spring of 1967

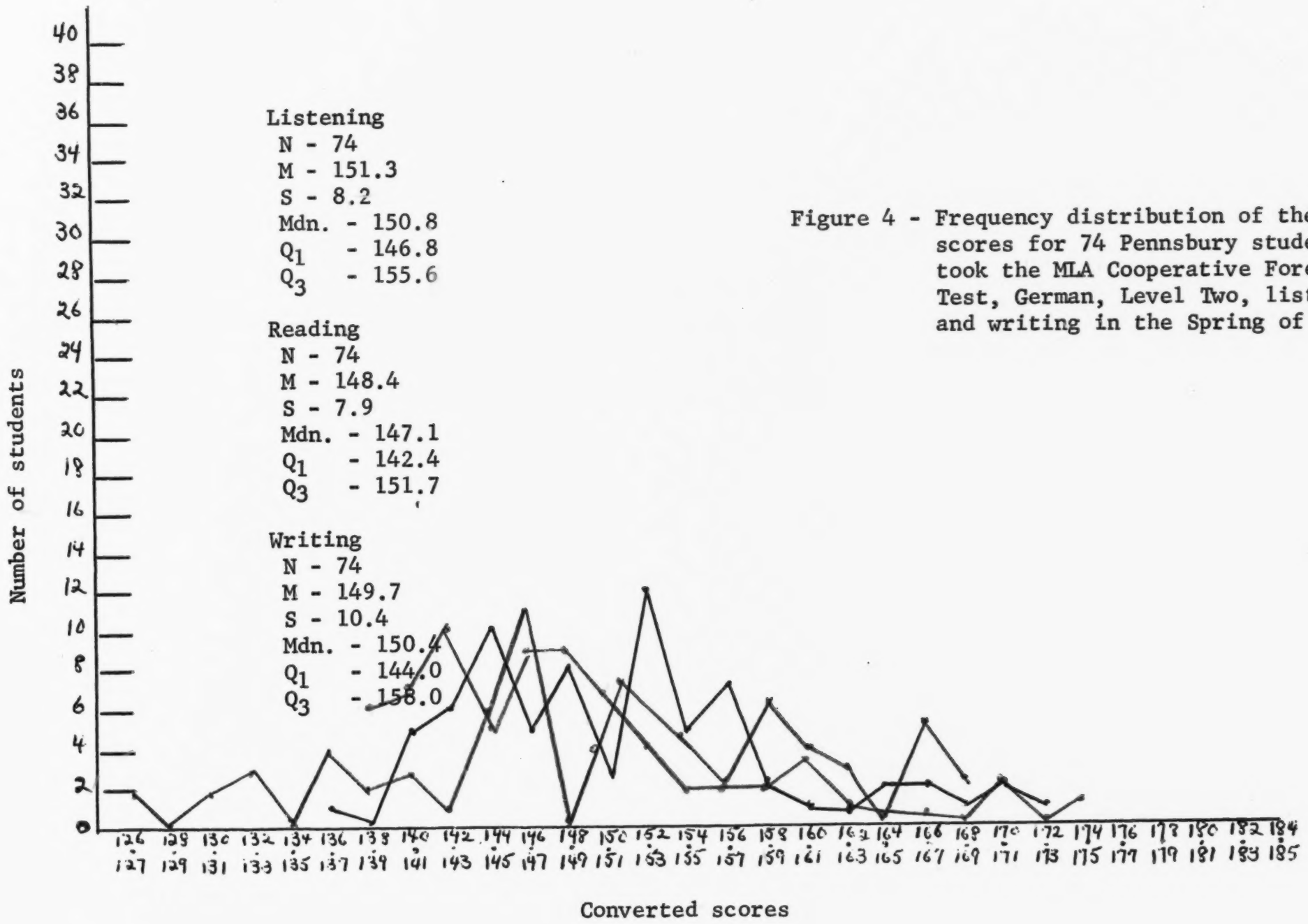


Figure 4 - Frequency distribution of the converted scores for 74 Pennsbury students who took the MLA Cooperative Foreign Language Test, German, Level Two, listening, reading and writing in the Spring of 1967

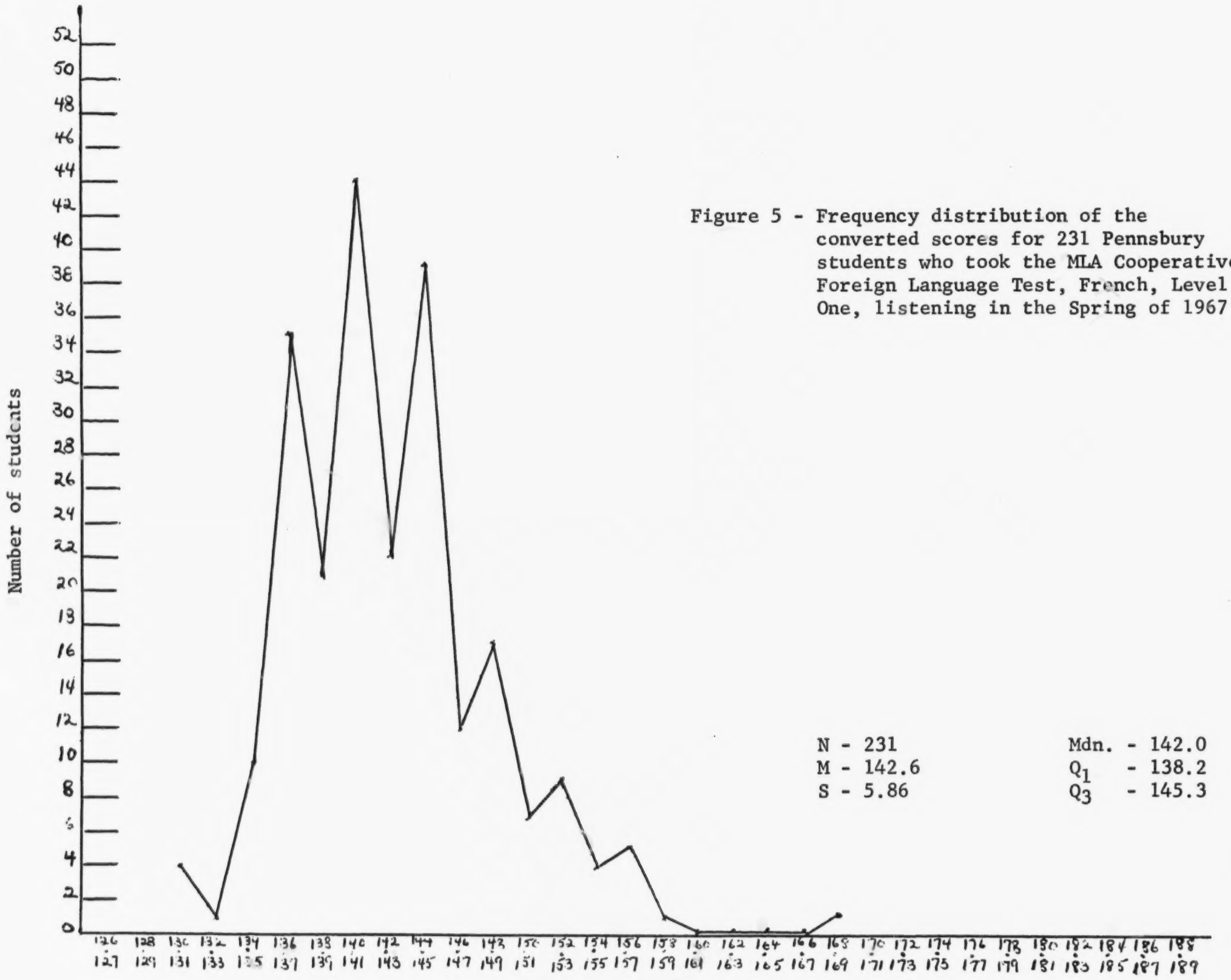


Figure 5 - Frequency distribution of the converted scores for 231 Pennsbury students who took the MLA Cooperative Foreign Language Test, French, Level One, listening in the Spring of 1967

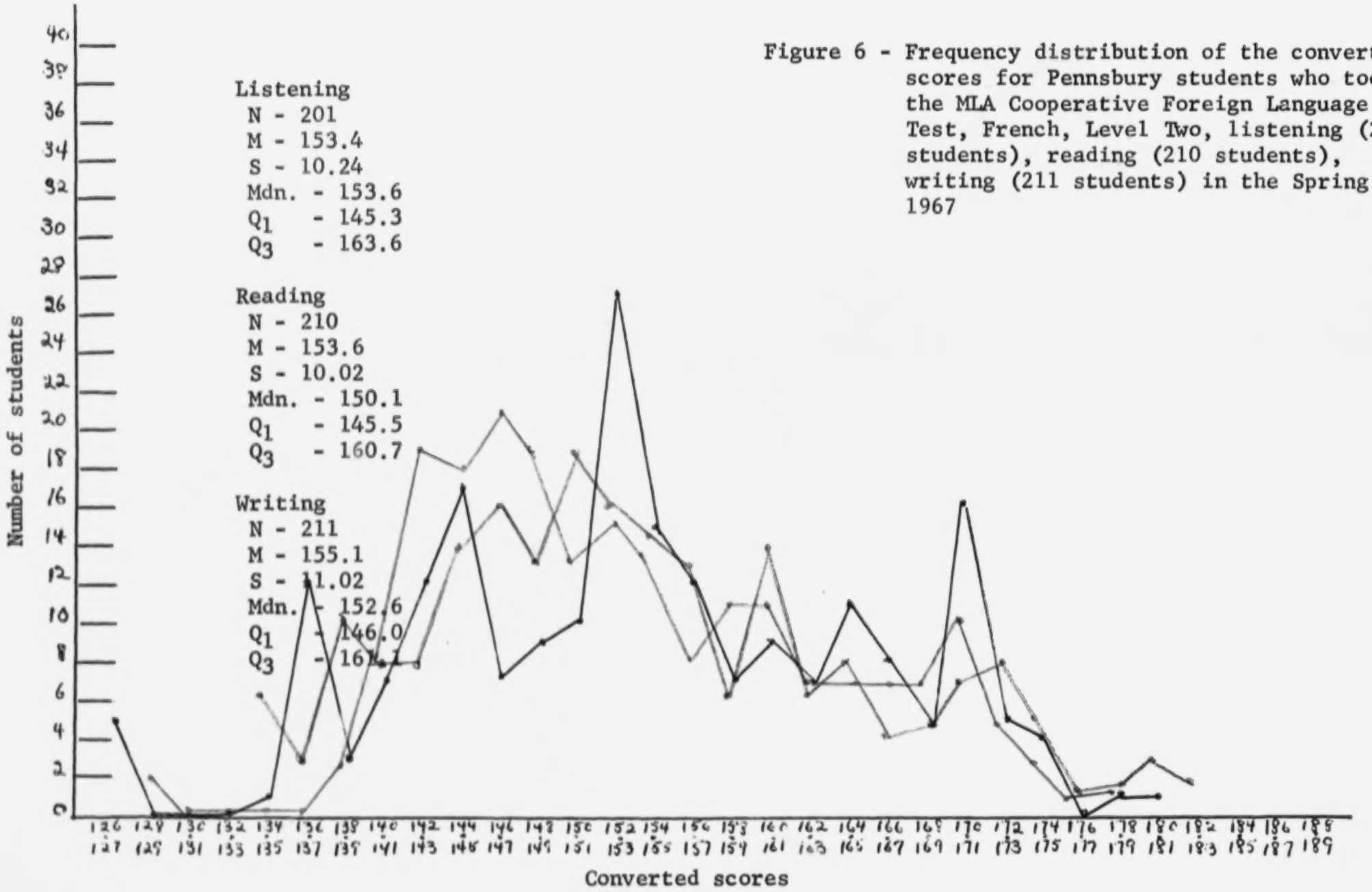
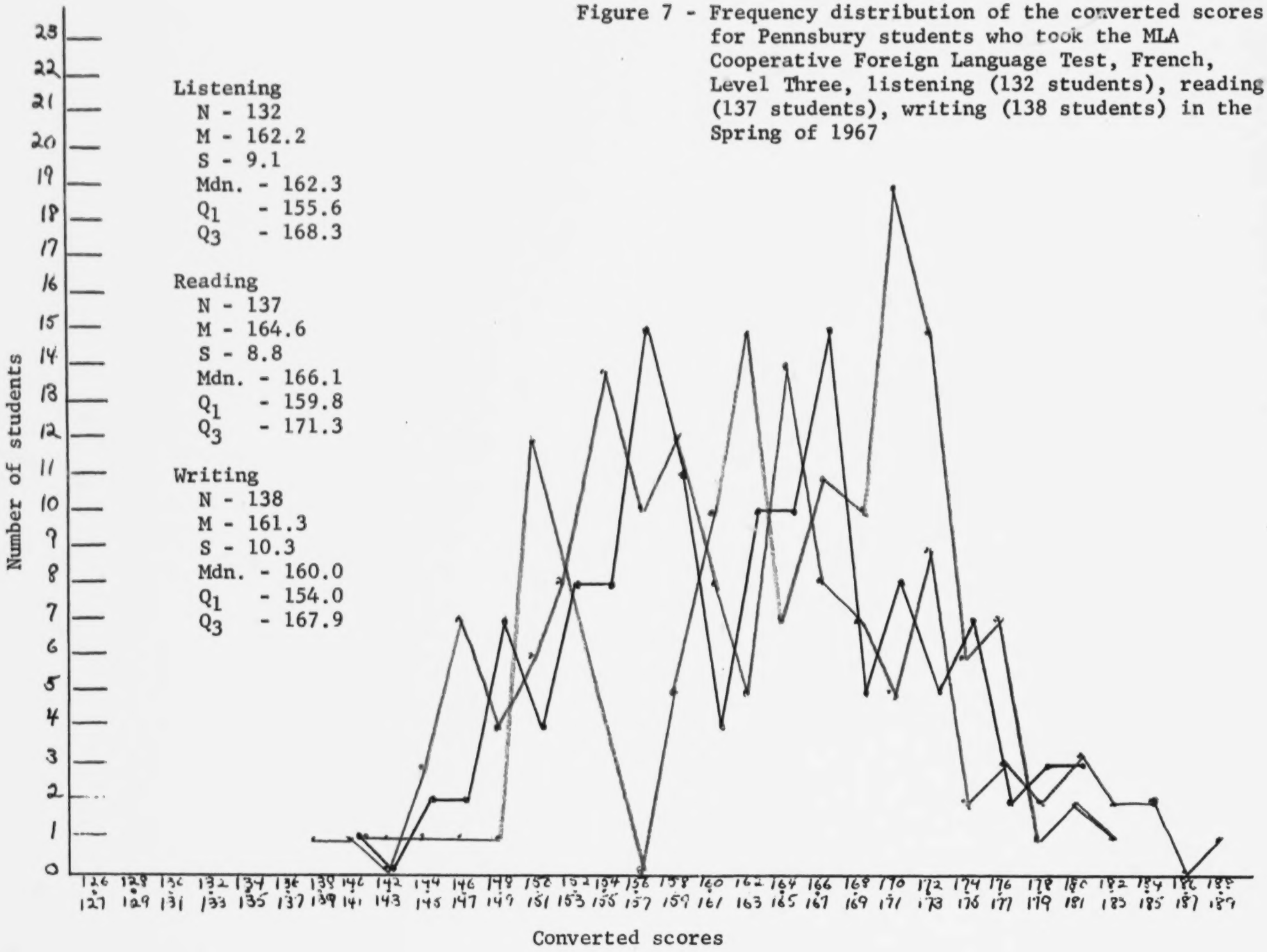


Figure 6 - Frequency distribution of the converted scores for Pennsbury students who took the MLA Cooperative Foreign Language Test, French, Level Two, listening (201 students), reading (210 students), writing (211 students) in the Spring of 1967

Figure 7 - Frequency distribution of the converted scores for Pennsbury students who took the MLA Cooperative Foreign Language Test, French, Level Three, listening (132 students), reading (137 students), writing (138 students) in the Spring of 1967



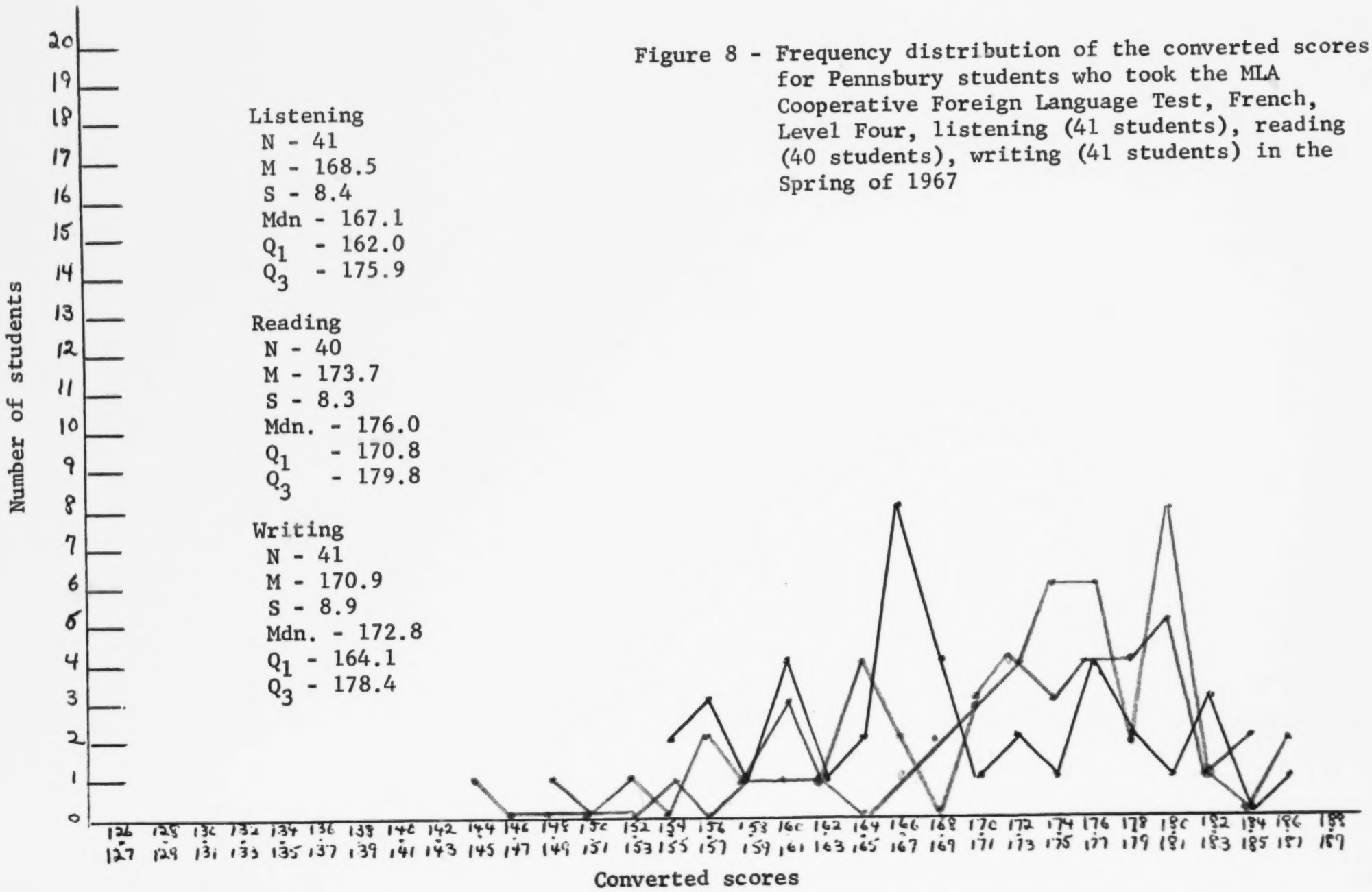


Figure 8 - Frequency distribution of the converted scores for Pennsbury students who took the MLA Cooperative Foreign Language Test, French, Level Four, listening (41 students), reading (40 students), writing (41 students) in the Spring of 1967